INDEX

PERSONAL INDEX

PAGE

Abbot, C. G. 103
Absalom, H. W. L. 186, 258, 284
Agius, T. 219
Aitken, J. 38, 258
Amundsen, R. 113, 270
Andrews, L. 85
Angenheister, G. 204
Angot, C. A. 15, 66, 77
Ångström, A. 160
Applegate, T. H. 130
Appleton, E. V. 9, 28, 258
Atkinson, R. d'E. 234

Babcock, H. D. 234
Bakkenes 19
Bale, J., Sons & Danielsson 66
Bardswell, N. D. 66
Barlow, E. W. 214
Barnes, A. A. 19, 107
Bartholomew, J. G. 7
Bauer, L. A. 177
Baxendell, C. 42
Baxendell, J. 42
Behrend & Co. 222
Bentley, R. 38
Bentley, W. A. 43
Besson, L. 55, 140
Betz 39
Biddlecomble, C. H. 280
Bigelow, F. H. 26, 95, 167
Bilham, E. G. 152, 158, 256
Binnie, Sir A. 264
Bjerknes, J. 174
Bjerknes, V. 101, 173, 293
Black, W. G. 7
Blackie & Son, Ltd., Messrs. .. 17
Blackman, V. D. 60
Blandford, H. F. 108
Boerema, J. 137
Bolton, C. P. 195
Bolton, E. 195
Borne, G. von dem 50
Botley, C. M. 132, 185, 287
Bourne, J. 185
Bouverie, A. P. 16
Bower, S. Morris 291
Bowman, I. 102

PAGE

Boys, H. A. 62, 162, 236, 287
Braak, C. 27
Bravais, A. 141
Brennan, J. F. 90
Bristol, J. 16
Britain, King and Queen of 112
Britton, C. E. 8, 19
Brooks, C. E. P. ... 27, 79, 94, 104, 156, 178, 203, 284, 295
Brown, E. W. 177
Brückner, E. 6
Brunt, D. 9, 19, 29, 239
Bryant, R. C. 138
Buchan, A. 10, 11, 204
Buxton, L. H. D. 141

Calderara, Messrs. S. & A. 193
Callendar, H. 19
Campbell, J. F. 138
Campo, G. 36
Cave, C. J. P. .. 10, 31, 60, 103, 128, 139, 159, 235, 259, 284, 291
Chapman, S. 31, 143, 235, 259
Chevalier, S. 136
Chree, C. .. 10, 32, 82, 258, 267, 284, 290
Christy, A. E. 33
Ciraolo, G. 266
Clark, J. E. 103, 154
Clark, W. S. 62, 67
Clarke, G. A. 19, 139, 161, 191
Clayton, H. H. 101
Clough, H. W. 102
Clowser, C. E. 111
Cohen, Sir R. W. 127
Coleman, A. P. 176
Combes, M. L. 265
Cooke, H. L. 220
Corless, R. 221
Cornish, V. 176
Cortie, Rev. A. L. 176
Cowper, J. E. 110
Cox, G. W. 267
Crosbie-Hill, B. 16

Dalgleish, J. J. 62
Dansey, R. P. 266

PAGE

Darling, J. J. 114
Davis, W. M. 102
Dawson, W. B. 176
Debenham, F. 267
Decheverens, M. 136
Defoe, D. 184
Demuyter 133
Dene, J. 62
Deslandres, H. 114
Dines, L. H. G. 12, 30, 57, 129, 131, 208, 217, 281
Dines, W. H. 101, 128, 259, 293
Dobson, G. M. B. 50, 235
Douglas, C. K. M. 128
Drysdale, C. V. 18
Duffield, W. G. 43, 219
Durst, C. S. 32
Durward, J. 9

Eccles, W. H. 258
Edwards, A. 114
Edwards, F. 33
Ekman, G. 32
Eliot, Sir J. 108
Emden, R. 58, 101
Entwistle, F. 158, 235
Eredia, F. 136
Esclangon, E. 50
Everdingen, E. Van 50, 55
Exner, F. M. 55, 82, 115, 293

Fairgrieve, J. 281, 282, 295
Farmer, J. S. 35
Ferguson, A. 17
Ferraz, S. 217, 253
Ficker, H. 293
Field, J. H. 108
Figgins, D. 38
Fisher, R. A. 14, 159, 176
FitzRoy, R. 94
Fowler, J. S. 66
Frewer, Rev. G. E. 185
Fritzsche, R. 6
Froc, L. 136

Galton, F. 3
Geddes, A. E. M. 17
Georgii, W. 293
Gherzi, E. 258
Giblett, M. A. 1, 30, 57, 174
Gibson, A. H. 17
Gibson, W. J. 161
Glaisher, J. 222
Glasspoole, J. ..136, 189, 205, 215, 264
Goddard, R. H. 52

PAGE

Godden, W. 288
Gold, E. 3, 57, 101
Goldie, A. H. R. 158
Gomez, C. A. 241
Gorzinski, W. L. 231
Gotteland 136
Gregg, W. R. 30, 57, 195
Guedalla, P. 37
Gwynne-Vaughan, H. 71

Haines, W. B. 159
Haines, W. C. 217
Hale, G. E. 102
Hall, M. 90
Hamilton, G. R. 66
Hand, I. F. 257
Hankin, E. H. 39
Hann, J. 15
Harries, H. 11, 105, 184
Harwood, W. A. 161
Haselfoot, E. F. B. 216
Heath, E. 55
Henley, W. E. 35
Herbertson, A. J. 7
Herd, J. F. 28
Hergesell, H. 9, 29
Hernandez, J. 40
Hess, V. 220
Hesselberg, T. 113
Hill, R. 83, 191
Hodgson, E. A. 176
Hogbom, I. 157
Hooker, R. H. 247
Hopkinson, E. 125
Horner, D. W. 211, 260
Hough, J. 31
Humphreys, W. J. 57, 85, 175
Hunt, F. R. W. 18
Hunter, J. 244
Huntsman, A. G. 177
Huyghen, C. 4

Irvine, A. C. 143

Jackson, H. F. 217
Janssen, J. 37
Jarrold, P. F. 261
Jeffreys, H. 32, 176
Johnson, N. K. 260
Johnston-Lavis, H. J. 66

Keen, B. 159
Kelvin, Baron 31, 125, 258
Kelvin, Lady 126
Kendall, W. 187, 205
Kerner, F. V. 7
Kerner-Marilaun, F. 285

PAGE

Kidson, E. 185
Kimball, H. H. 68, 176, 257
Kitchener, E. 154
Kleinschmidt, E. 95
Kolhörster, W. 220

Lallemand, C. 232
La Cour, D. 232
Lamb, E. G. 294
Lamb, H. 17, 31, 51
Lander, T. E. 13
Landon, H. P. 112
Leach, W. 65
Lee, H. le 136
Lempfert, R. G. K. 68, 128, 232
Lewis, L. F. 128
Lindemann, F. A. 50
Lisle 34
Locke, J. 184
Lodge, Sir O. 263
Loomis, E. 6
Lowe, E. J. 38
Lowe, G. 213
Lowell, J. R. 126
Lüdeling, G. 222
Lyons, H. G. 19, 267

McAdie, A. 34
McLennan, J. C. 233
McLeod, H. 138
Mace, J. E. 62
Mallory, G. L. 143
Manson, M. 92, 156
Margary, I. D. 82, 103
Margules, M. 31
Marriott, W. 221
Marshall, R. 103
Martin, E. A. 264
Marvin, C. F. 135, 173, 236, 286
Mascart, E. 77
Mauchly, S. J. 201
Maurain, C. 50
Maxwell, C. 125
Mayers, A. E. 223
Meinardus, W. 204,
Meinesz, V. 192
Meisinger, C. Le Roy 67, 101, 107
Mercanton, P. L. 89
Merle, Rev. W. 191
Meyer, L. 95
Michell, A. G. M. 18
Mill, H. R. 42
Millikan, R. A. 220
Milne, E. A. 4, 30, 57, 167
Mitchell, A. C. 158, 186
Mitchell, C. L. 270
Moidrey, J. de 136

PAGE

Molyneux, W. 184
Moore, Sir J. 62
Mörikofer, W. 290
Mulholland, P. I. 208
Murray, J. 6

Neely, J. T. 107
Newcomb, S. 102
Newnham, E. V. 3, 257, 270
Newton, Lord 70
Normand, C. W. B. 213
North, J. D. 39
Norton, E. F. 143
Notley, H. 110

Ockenden, C. V. 221
Okada, T. 10
Onnes, H. K. 38, 233
Owens, J. S. 69, 174, 258, 284

Palm, T. A. 115
Palmer, A. H. 15
Parkin, J. 66
Parry, W. E. 138
Parry 211
Parsons, F. J. 61
Pastorelli & Rapkin, Ltd. 150
Patterson, J. 175
Payer, J. de 223
Peek, F. W. 165
Peppler, W. 257
Pernter, J. M. 55
Philip, G., & Sons 117
Pick, W. H. 43, 63, 257
Pilgrim, L. 95
Plummer, S. N. 105
Priestly, R. E. 267

Quervain, A. de 49

Rambaut, A. A. 116
Ransome, A. S. 153
Rayleigh, Lord 269
Reed, W. W. 40
Rew, Sir H. 177
Richardson, E. H. 43
Richardson, L. F. 51, 158, 173, 186, 222, 231, 235, 236
Roberts, O. F. T. 18
Robertson, W. G. A. 66
Robson, E. F. 130
Rogers, J. M. 86
Ronalds, Sir F. 242
Rotch, A. L. 101
Rouch, J. 268
Roumania, King and Queen of .. 112
Russell, Sir J. 159
Russell, S. C. 56, 91, 104

PAGE

Rutherford, E. C. 153

St. Audries, Lord 188
Sabine, Sir E. 242
Saleeby, C. W. 115
Salter, M. de C. S. 208, 263
Salter, M. J. 210, 239, 259
Sandström, J. W. 293
Scanlan, M. 115
Schepers, G. H. 142
Schmauss, A. 222
Schuster, Sir A. 243
Schwarzschild, K. 57
Scott, G. H. 3
Scott, R. E. 191
Sen, S. N. 254
Shackleton, Sir E. 164
Shaw, G. B. 70
Shaw, H. K. 116
Shaw, J. J. 176, 191
Shaw, Sir N. 18, 19, 63, 68, 71, 77, 101, 125, 128, 143 159, 162, 173, 186, 230, 238, 285, 286, 288, 293
Shaw, W. J. 224
Shrum, G. M. 233
Simpson, G. C. ... 19, 101, 108, 109, 112 164, 183, 187, 201, 220, 233, 255, 259, 267, 270, 294
Simpson, Mrs. 19
Smith, E. H. 181
Smith, F. E. 258
Somervell, T. H. 143
Sommerfelt, A. 295
Southall, M. L. 137
Spain, King of 229
Spence, M. T. 8
Sprung, A. 102
Stanford, E., Ltd. 221
Stanton, T. E. 294
Steinkopff, V. von T. 293
Stokes, Col. 211
Stokes, Sir G. 138
Strachan, R. 94
Strachey, Sir R. 127
Stupart, Sir F. 173
Supan, A. 6
Sutcliffe, E. R. 71
Sutherland, Duke of 115
Sutton, J. R. 212
Sutton, L. J. 86, 236
Symons, G. J. 83, 95, 149

PAGE

Tait, P. G. 125
Taylor, E. 284
Taylor, G. 267
Taylor, G. I. 9, 17, 28, 101
Tawney, E. M. 288
Teisserenc de Bort 101
Thomson, A. 175
Thomson, Arthur 141
Thomson, J. 102, 126
Thoret 185
Thornton, R. H. 35
Turner, A. D. 215
Turner, A. K. 110
Tutton, A. E. 37

Udden, A. D. 9
Upton, H. A. S. 185

Vallot, J. 37
Vegard, L. 8, 38, 65, 87, 233
Vœux, H. A. des 71
Vigurs, C. C. 262

Walford, E. W. 264
Walker, A. O. 61
Walker, Sir G. T. .. 25, 108, 163, 259
Warr, Earl de la 134
Watt, R. A. W. 9, 28, 139, 259
Webster, N. 35
Weinberg, B. 72
Weise, W. 181
Welsh, J. 242
Wheater, T. S. 118
Wheatley, J. 71
Whipple, F. J. W. .. 19, 49, 84, 86, 149, 174, 201, 245, 255, 263, 282
Whiston, J. 91
Whitehead, A. N. 143
Wilson, C. T. R. .. 29, 202, 255, 259
Wilson, E. A. 191
Wilson, S. 152
Wolf, R. 25
Wright, C. S. 267
Wüst, G. 6

Zandt, J. P. van 195
Zealley, R. 91, 166

SUBJECT INDEX.

Meteorology—General :—

Official Notices :—

PAGE

Amendments to Reference Table—Climatological Table for the British Empire 142
Autographic Records at South Kensington, Display of 44
Cloud Amount, Reports of 64
Discussions at the Meteorological Office 183
Earwigs and Recording Instruments 87
Height of Low Cloud, The 64
Investigation of Winter Thunderstorms, 1925 291
Lectures on Meteorological Optics, A course of 19
Lectures on Radiation, by Sir Napier Shaw, A course of 71
Lightning Investigation 183
Meteorological Instruction for Observers at Crop-weather stations, A course of 214
Postcards for reporting rainfall to local organizations 127
Publication of Monthly Records of Atmospheric Pollution 116
Rain Gauges in the London Parks 214
Rain Measure, A new 193
Summer Time Act 182
Superintendents, Change of 158
Telegraphic Reports from Harrogate 117
Terrestrial Magnetism and Seismology at the Meteorological Office Observatories 242
Training for Observers at Kew, A course of 14
Weather of October, 1923, The 132

Official Publications :—

Advisory Committee on Atmospheric Pollution, Ninth annual report 116
Book of Normals of Meteorological Elements for the British Isles for periods ending 1915, Section V 208
Fernley Observatory, Southport, Report and Results of Observations for the year 1922 42
Monthly Records of Atmospheric Pollution 116
Observer's Primer, The 209
Professional Notes, Vol. 3, Nos. 34-37 ..... 158, 208, 256, 284
Réseau Mondial, 1915 & 1916 ..... 158, 284

Societies, Lectures, Collections, Etc. :—

British Association for the Advancement of Science, Toronto, August, 1924, ... 117, 173
British Empire Exhibition at Wembley : Atmospheric Pollution 143
British Rainfall Organisation in the service of Water Engineers 263
Conference between the Royal Meteorological Society, The Geographical Association, and the Science Masters' Association : Report published of the 117
Geographical Association 295
Geophysical Exhibition at the Science Museum 190
Institute of Physics 263
International Meetings 114
International Union of Geodesy and Geophysics, Madrid, October, 1924. R. G. K. Lempfert 229

Meteorology—General—*cont.*

Societies, Lectures, Collections, Etc. :—cont. PAGE

Jevons Memorial Lectures, 1924-5 247
Lecture by Dr. Simpson at the Guildhouse, London 294
Lecture by Dr. Stanton 294
Meteorological Office, Discussions at the :—

PAGE

The auroral spectrum and the upper strata of the atmosphere 8
The constitution of the upper strata of the atmosphere 8
A statistical study of surface and upper air conditions in cyclones and anticyclones passing over Davenport, Iowa..... 9
On the nature of atmospherics 28
Der tägliche Gang der Temperatur in der freien Atmosphäre über Lindenberg 29
An aerological survey of the United States. Part I. Results of observations by means of kites 57
Radiative Equilibrium: the Insolation of an Atmosphere 57
Light emitted from solid Nitrogen when bombarded with Cathode Rays and its bearing on the Auroral Spectrum 233
On the Luminescence of Nitrogen, Argon and other condensed Gases at very low Temperatures 233
Measurements of the Sun's Ultra-Violet Radiation and its absorption by the Earth's Atmosphere 235
Die thermische Schichtung der Atmosphäre.. 257
Investigation of the Dust Content of the Atmosphere 257

Meteorological Office Exhibit at Wembley 111
Meteorological Society, The Royal :—

PAGE

Election of President and Council for 1924, presentation of Symons Medal and institution of a Buchan Prize 10
Retiring President's address, Reflections on various subjects including meteorology and sunspots..... 10
The lunar atmospheric tide at Mauritius and Tiflis..... 31
The semi-diurnal oscillation of the Atmosphere 31
The relationship between current and wind.. 32
Atmospheric Electric Currents, normal and abnormal, and their relation to the growth of plants 60
Glaisher Stand versus Stevenson Screen. A comparison of 40 years' observations of maximum and minimum temperature as recorded in both screens at CamdenSquare, London 82
A Lens for whole sky Potography..... 83
The significance of regression equations in the analysis of upper air observations..... 84
Report on the Phenological Observations in the British Isles from December, 1922, to November, 1923 103
The distribution of Rainfall over Uganda with a note on Kenya Colony 104
Diagram showing daily records of Well levels in Sussex and Kent 104
Further researches into the European upper air data with special reference to the life history of cyclones..... 128
The effect of the source of air on its temperature at 4,000 ft. and 10,000 ft. 128
A simple electrical time-marking system for use with self-recording meteorological instruments..... 129
Summer meeting at Rothamsted Experimental station, Harpenden 159
Adaptation of Variety to Climate 159
A comparison of the readings taken a Rothamsted with three types of radiation recorders 159
The Brown Corona and the Diameters of Particles 235
Photometric Observations on Clouds and clear shies 236
Notes on Haboobs 236
Ionization in the Atmosphere 258
Note on Bjerknes's Contribution of 1921 to the Mechanics of the General Circulation.. 259
The Correlation between Pressure and Temperature in the upper air with a suggested explanation 259
The Problem of mild Polar Climates..... 284
Winds and Temperature in a dry Atmosphere 285

Parkin Prize of the Royal College of Physicians of Edinburgh 66
Physical Society of London 19
Royal Aeronautical Society, Lecture by Dr. Simpson..... 270
Royal Photographic Society..... 19
Society of Bookmen, Meeting on November 6th 37
Sunlight League 115

Foreign Institutions, Etc. :—

American Meteorology Society 135
Apia Observatory Samoa 88
Brazilian Meteorological Service 217
Central Physical Observatory, Leningrad (Petrograd)..... 43
Deutsche Seewarte..... 43

Meteorology—General—*cont.*

Foreign Institutions, Etc. :—cont.

PAGE

Institute Royal Météorologique, Brussels. Gordon Bennett Balloon Race, June, 15th, 1924 133
Jamaica Weather Service 90
Norwegian Meteorological Service 135, 164
Observatories on Mont Blanc 37
Siccawei Observatory 136

Expeditions, Contests :—

Amundsen's Polar Flight 113
British Antarctic Expedition 267
Circuit of the Globe 213
French Expedition to the North Pole 223
From Tuggurt to Tozeur by motor 15
Godthaab Expedition, The 135
Gordon Bennett Balloon Race, June 15th, 1924 133
Italian Gliding Contests 207
Loss of the Dixmude 1, 140
Maud Expedition, The 270
Mount Everest Expedition 143
New Record Gliding Flight 185
Quest Expedition, The 164

Reviews :—

PAGE

ADVISORY COMMITTEE ON ATMOSPHERIC POLLUTION.—NINTH REPORT OF THE 116
ANNALS OF THE ASTRONOMICAL OBSERVATORY OF HARVARD COLLEGE. Vol. 86, Part 3 . 35
ANLEITUNG ZUR ANSTELLUNG UND BERECHNUNG DER BEOBACHTUNGEN AN DEN DEUTSCHEN METEOROLOGISCHEN STATIONEM. Ertser Teil. Edited by G. Lüdeling 222
ATLAS PLUVIOMETRICO DO NORDÉSTE DO BRASIL 165
BOLETIM MENSAL DE BRASIL 217
CLAYTON, H. H.—World Weather. Lt.-Col. E. Gold 101
FERNLEY OBSERVATORY, SOUTHPORT.—Report and results of observations for the year 1922 42
GEORGII, W.—Wettervorhersage die fortschritte der synoptischen meteorologie. G.C.S. 293
INDIA WEATHER REVIEW 134, 213
MANSON MARSDEN.—The Evolution of Climates. C.E.P.B. 92
MANSON MARSDEN.—The Physical and Geological traces of the Cyclone belt across North America. C. E. P. Brooks 156
MARRIOTT, W.—Hints to Meteorological Observers 221
MATÉRIAUX POUR L'ÉTUDE DES CALAMITÉS ... 266
MECHANICAL PROPERTIES OF FLUIDS—a collective work 17
MITCHELL, C. L.—West Indian Hurricanes and other Tropical Cyclones of the North Atlantic Ocean. E. V. Newnham 270
MONTHLY WEATHER REVIEW, SUPPLEMENT No. 23. 1923 40
OBSERVATORY REPORTS FOR 1923.—Falmouth and Radcliffe Observations 115
PEEK, F. W.—High Voltage Phenomena 165
RAINFALL IN THE SOUTHERN PENNINES.—Annual Summary, Vol. I., No. 2 19
ROUCH, J.—L'Atmosphére et la Prévision du Temps 268
SERVEI METEOROLÒGIC DE CATALUNYA.—Notes d'Estudi Nos. 19, 21, 22, 25 and 28 36
SOUTH AFRICAN IRRIGATION DEPARTMENT MAGAZINE 267
THOMSON, A., AND BUXTON, L. H. D.—Man's Nasal Index in relation to certain climatic conditions 141
WALFORD, E. W.—The Great Dew Pond Myth 264
WALKER, G. T.—Correlation in Seasonal Variations of Weather. VIII. A preliminary study of World Weather. C. E. P. Brooks 25
ZEALLEY, R.—An Introduction to Forecasting Weather 166

Biography, History, Etc. :—

First Balloon Sonde Ascent over the Sea 216
Kelvin, June 26th, 1824—December 23rd, 1907, by Sir Napier Shaw, F.R.S. 125
Rainfall Observer for sixty-seven years, A 67

Retirement :—

PAGE

Sir NAPIER SHAW 162
Dr. G. T. WALKER 108

Meteorology—General—*cont.*

Meteorological Office Staff News :— PAGE

Annual Soirée, 1924 19
Appointment of O. F. T. Roberts as Cruickshank Lecturer 18
Change of Superintendents 158
Chess Match 95
Degree, Ph. D. obtained 254
Retirement of Dr. A. Crichton-Mitchell. G. C. S. 186
Shoeburyness Staff Dinner 19

Appointments and Awards :—

Beyer Chair of Applied Mathematics. E. A. Milne appointed to the 167
Cruickshank Lecturer : O. F. T. Roberts appointed as 18
Director-General of Observatories, India : J. H. Field appointed as, G. C. S. 108
Duddell Medal, 1924 : Award to Prof. H. Callendar 19
Knighthood conferred on Dr. G. T. Walker 108
Meteorological Dept. of the Würtemberg Statistical Office and the Würtemberg State Meteorological Office : Prof. E. Kleinschmidt appointed as Director of the 95
Professor of Mathematics, London : Prof. S. Chapman appointed as 143
Professor of Meteorology at the Imperial College of Science & Technology, London : Sir Gilbert T. Walker appointed as 163
Professor of Philosophy, Harvard : Prof. Whitehead appointed as 143
Radcliffe Observer : Mr. H. K. Shaw appointed as 116
Royal Photographic Society Medal : Award to G. A. Clarke 19
Royal Swedish Academy of Science : Sir Napier Shaw elected as foreign member of the 143
Russian Central Physical Observatory : Boris Weinberg appointed as Director of the 72
Silver Medal : Award to A. E. Mayers 223
Solarphysics Observatory. Canberra : Dr. Duffield appointed as Director of the 43

Obituary :— PAGE

ANGOT, ALFRED 66, 77
BIGELOW, PROF. F. H. 95, 167
BOLTON, C. P. 195
IRVINE, A. C. 143
LAMB, E. G. 294
MALLORY, G. L. 143
MEISINGER, DR. C. LE ROY 107
NEELY, LIEUT. 107
STRACHAN, R. 4

Miscellaneous :—

Aeroplanes and Floods on the Vistula 60
After the Thunderstorm ; An unexplained subsidence 214
Cart before the Horse, The 9
Fate of Old Weather Records. Hy. Harries 183
Florid Weather Diary, Worcestershire, 1703 91
Government's Appreciation of the Work of Meteorological Observers 65
History and Weather 37
Lens for whole sky Photography, A 83
Meteorological conditions affecting scent 43
Music and Meteorology. C. M. Botley 131
New Cases for the display of autographic records at South Kensington ... 44
Our Sins of Omission 247
Parkin Prize 66
Reverse of Daylight Saving 91
Shakespeare's Use of Meteorology. C. M. Botley 287
Times of Explosions at La Courtine 95

Observatories and Stations :— PAGE

Apia Observatory, Samoa 88
Crop-Weather Stations 214
The Edgbaston Observatory, Birmingham 90
Harrogate 117
Jan Mayen 67
Observatories on Mont Blanc 37
Siccawei Observatory 136

Methods of Observation and Computation :—

Cloud Observations. E. Kidson 184
Determination of the Height of Clouds 140
Effect of protecting wire cage upon the readings of a grass minimum thermometer 40
Effect of Wind Suction in Lighthouses. Hy. Harries 10
Estimation of Height of Low Cloud 289
Method of determining the heights of low Clouds 64
Precision in Rainfall Measurement 193
,, ,, ,, M. J. Salter 210, 239
,, ,, ,, D. W. Horner 259
Probability Paper 195
Progress in the Study of World Weather, by C. E. P. Brooks 25
Reports of Cloud Amount 64
Semi-diurnal oscillation of the Atmosphere 31
Two Hints for Rainfall Observers. T. E. Lander 13

Instruments :—

Bellani lucimeter, The 140
Defects of Pressure Tube Anemometer at Low Wind Speeds (*illus.*) 132
Earwigs and Recording Instruments 87
Effect of a protecting wire cage upon the readings of a grass minimum thermometer 40
Exposure of Thermometer Screens 244
Geophysical Exhibition at the Science Museum 190
Glashier Stand *versus* Stevenson Screen. A comparison of 40 years' observations of maximum and minimum temperature as recorded in both screens at Camden Square, London 82
Kew Pattern Barometer—Marine Tupe 192
Laboratory at the Meteorological Office, South Kensington 262
Magnetic and Seismological instruments at Kew and Eskdalemuir 242
" Maximum " Anemometer, A 89
McLeod Sunshine Recorder, The 138
Meteorograph used during first Ballon Sonde Ascent over the Sea 216
Meteorological Office Instruments at Wembley 111
New Rain Measure, A 193
On the effect of Radiation on the Grass Minimum Thermometer. L. H. G. Dines 12
Rain Gauges in the London Parks 214
Roof for the Campbell-Stokes Sunshine Recorder 260
Self-recording meteorological instruments, A simple electric time-marking system for use with 129
Symons' illuminated storm gauge, The 150
Testing of Rain-Gauges 246
Two hints for Rainfall Observers. T. E. Lander 13

Investigation of the Upper Air :—

Aerological survey of the United States, Part I 57
Aeroplane as an Aid to Pilot Balloon Work 215
Air Temperature near the ground 290

Investigation of the Upper Air—*cont.*— PAGE

Auroral spectrum and the upper strata of the atmosphere 8
Ballon Sonde Ascent over the Sea 216
British Association Meeting at Toronto, 1924, Discussion on Upper air research 175
Constitution of the upper strata of the atmosphere 8
Determination of the Heights of Clouds 140
Effect of the source of air on its temperature at 4,000 ft. and 10,000 ft. 128
Flying in the Arctic Regions 113
Further researches into the European upper air data, with special reference to the life history of cyclones 128
High Pilot Balloon Ascent at Shoeburyness, May 28th, 1924. D. Brunt 238
International Union of Geodesy and Geophysics, Madrid, 1924, Need for further investigation of the upper air discussed at the 231
Italian Glider Contests 207
London Fogs from Above, by C. H. Biddlecombe 277
Loss of the French Airship " Dixmude " 140
Low Velocities in the Upper Air. L. J. Sutton 86
Meteorological Free-Ballooning in the United States 67
New " Record " gliding flight 185
Notes on Meteorology and the Navigation of Air-ships (*illus.*). M. A. Giblett 1
Pilot Balloon Observations at Barcelona 36
Significance of regression equations in the analysis of upper air observations 84
Soaring Flight 39
Statistical study of surface and upper air conditions in cyclones and anticyclones passing over Davenport, Iowa 9
Tägliche Gang der Temperatur in der freien Atmosphäre über Lindenberg, Der 29
Temperature and Humidity in and above the Fog (*illus.*) 281
Thermische Schichtung der Atmosphäre 257
Twenty and a half kilometres up 217
Upper air observations at Apia Observatory, Samoa 88
,, ,, Soesterberg 19
,, Research. L. H. G. Dines 130
,, work in India 134

Physics of the Atmosphere :—

Advisory Committee on Atmospheric Pollution, Report of the 116
Atmospheric Pollution at the British Empire Exhibition 143
,, ,, Exhibit at the Science Museum 192
,, ,, Records of 116
Clean Atmosphere, Demand for a 70
Explosions at La Courtine, Air Waves from the 114
Investigation of the Dust Content of the Atmosphere 257
Observations with the Jet Dust Counter (*illus.*). J. S. Owens 283
Propagation of Sound in the Atmosphere (*illus.*). F. J. W. Whipple 49
Smoke Abatement Bill 134
,, over London, January 23rd, 1924 70
,, screen over Paris 140
Visibility and Convection. W. H. Pick 63
,, at Cahirciveen, County Kerry, On the inter-relation of Wind Direction with Cloud Amount and 208

Cosmical Relations :—

Lunar atmospheric tide at Mauritius and Tiflis 31
Reflections on various subjects including Meteorology and sunspots 10
Semi-diurnal oscillation of the Atmosphere 31
Solar Radiation in relation to Weather at the International Union of Geodesy and Geophysics, Madrid, 1924 230

Cosmical Relations—*cont.*— PAGE

Weather and Magnetic Character. C. Chree 32
World Weather and solar radiation, by Lt.-Col. E. Gold 101
,, ,, Sunspots, by C. E. P. Brooks 25

Optical Phenomona :—

Bold Experiments in Physiological Optics 213
Corona, Elliptical lunar, at Aberdeen 261
,, The Brown, and the Diameters of Particles 235
Halo at Waringstown. W. J. Gibson 161
,, Phenomenon ? A New, An oblique arc 90° from the Sun. T. H. Applegate 130
,, , Photograph of an Elliptical 139
Light of the Night Sky 269
Parry's Upper Arc, An observation which may refer to 138
Sun-Pillar Observations—March 13th, 1924 (*illus.*) 52
Total Diffusion of light near the Poles 268
Weather Lore in the Light of Science. W. J. Humphreys 84

Atmospheric Pressure :—

Abnormal pressure distribution, April to August, 1924 179
,, ,, ,, during the Winter and Early Spring, 1923-4 79
Atmospheric Pressure, Control of Fire Damp by (*illus.*). J. R. Sutton .. 211
Barometric changes during Hurricane experienced at Montserrat (West Indies), August 28th, 1924. C. A. Gomez 239
Chart of probable " barometric state " issued from Leningrad 43
Diurnal variation of barometric pressure due to the moon 31
Dry Winter of 1922-3 in Spain 36
Pressure at Southport, The 3·1 year period in rainfall and 42
,, Type in relation to Fog Frequency at Scilly during the Summer months 256
Semi-diurnal oscillation of the Atmosphere 31
Variations of World Weather associated with surges of pressure, by C. E. P. Brooks 26

Temperature and Radiation :—

Temperature :—

Abnormal temperatures of the Winter and Early Spring, 1923-4 81
Chilly South, The 15
Effect of a protecting wire cage upon readings of a grass minimum thermometer 40
Effect of the source of air on its temperature at 4,000 ft. and 10,000 ft. 128
Glaisher Stand *versus* Stevenson Screen, A comparison of 40 years' observations of maximum and minimum temperature as recorded in both screens at Camden Square, London 82
Influence of temperature on the shape of the nose 141
Severe winter in Greece. H. A. Boys 61
Sudden drop of temperature during the storm of July 22nd, 1924 155
Temperature and Humidity above the Fog (*illus.*) 281
,, ,, Winds in a dry atmosphere 285
,, during the Past Ages 93, 157
,, in Mexico 40
,, in the Polar Regions 113
,, near the ground 290
,, observations on the R.M.S. " Caronia," August, 1924 173
,, , On the luminescence of Nitrogen, Argon and other condensed gases at very low 233
,, Records at Radcliffe Observatory, Oxford 115
Thermische Schichtung der Atmosphäre, Die 257

Temperature and Radiation—*cont.*—

Temperature—cont.— PAGE

Thermometer Screens, On the Exposure of 244
Variation of Temperature with height in the free atmosphere above Lindenberg 29

Radiation :—

Comparison of the readings taken at Rothamsted with three types of radiation recorders 159
Green Auroral Light in the Laboratory, The 38, 87
Long Arm of Coincidence, The. F. J. Parsons 61
Measurements of the Sun's ultra-violet radiation and its absorption by the Earth's Atmosphere 235
Penetrating Radiations of the Upper Air. C. V. Ockenden 220
Radiative Equilibrum ; the insolation of an atmosphere 57
Radiation from the Atmosphere—A correction 65
,, measured at Benson, October, 1923, to September, 1924 16,89,163,246
,, on the Grass Minimum Thermometer, On the effect of 12
Solar radiation discussed at the Madrid (1924) Meeting of the International Union of Geodesy and Geophysics 230
Sunlight and Health 115
Sunshine and Shadow on Christmas Eve 287

Aqueous Vapour and Rain :—

Aqueous Vapour :—

Balance of Precipitation and Evaporation by Land and Sea 6
Cloud Amount and Visibility at Cahirciveen, County Kerry, On the interrelation of Wind Direction with 208
Clouds and Clear Skies, Photometric observations on 236
Cloud and Fog in the Desert 35
,, Exhibit at the Science Museum 191
,, Observations. E. Kidson 184
,, Pendant, A. A. E. Christy 33
Determination of the Height of Clouds 140
Dry Decks in Sea Fog. F. J. W. Whipple 245
Estimation of Height of Low Cloud 289
Fog Frequency at Scilly during the Summer months, Pressure type in relation to 256
,, in London on January 23rd, 1924 69
,, in the Polar Regions 113
,, of December 9th-12th, 1924 (*illus.*). J. S. Owens .....
,, , Temperature and Humidity in and above the (*illus.*).
Great Dew Pond Myth 264
Height of Low Clouds 64
Humidity on the shape of the nose, Influence of 141
London Fogs from Above, by C. H. Biddlecombe 277
Measurements of Water Droplets in the United States 68
Observations with the Jet Dust Counter (*illus.*). J. S. Owens 283
Reports of Cloud Amount 64
Simultaneous Rain and Fog 35
Steaming Roads. L. Andrews 85
Town and Country Observations. J. Fairgrieve 280

Rain :—

After the Thunderstorm, An unexplained subsidence 214
Atlas Pluviometrico do Nordéste do Brasil 165
Balance of Precipitation and Evaporation by Land and Sea 6
Dry Winter of 1922-3 in Spain 36

Aqueous Vapour and Rain—*cont.*—

Rain—cont.— PAGE

Great Storm of May 31st, 1924. Rainfall at Ludlow, Salop. A. A. Barnes 106
,, ,, ,, ,, ,, Measurements in the Wirral Peninsula. E. F. Robson 129
Long Arm of Coincidence 16
,, ,, ,, . A. O. Walker 61
,, Records. J. Ellis Mace 62
Rain and Fog, Simultaneous 35
,, , Heavy, during the hurricane at Montserrat, August 28th, 1924. C. A. Gomez 239
,, , Heavy, in S.E. England, July 22nd, 1924 153
,, , Heavy Summer, in China 189
,, , Unprecedented, in Carter County, Tennessee, June 13th, 1924 265
Rainfall and pressure at Southport, The 3.1 year period in 42
,, at Arequipa 35
,, ,, Cannington, The Unprecedent, (*illus.*), by J. Glasspoole 205
,, ,, Pantchevo, The absence of normal 95
,, , Average, in the British Isles 208
,, , Fluctuations of annual, Three driest consecutive years 264
,, , General Distribution, 1924 ..... *monthly*
,, , Great variation in annual. W. Godden 288
,, , Heavy, in Ireland. H. A. S. Upton 185
,, , Heavy, of the early morning of August 19th at Cannington, in Somerset. J. G. 187
,, Insurance 88
,, in the southern Pennines 19
,, map of the British Isles, Construction of 263
,, measurement, Precision in (*illus.*) 193
,, ,, ,, . M. J. Salter 210, 239
,, ,, ,, . D. W. Horner 259
,, measuring glasses, Testing of 262
,, of 1924 291
,, Observer for sixty-seven years, A 67
,, Observers, Two Hints for 13
,, of May 31st, 1924 119
,, of very rare intensity (*illus.*), by F. J. W. Whipple 149
,, over Uganda with a note on Kenya Colony, The distribution of 104
,, Relation of yield of wheat to 159
,, Tables for 1924 ..... *monthly*
Rain-gauges, The Testing of 246
Weather Insurance for Farmers 14

Solid Precipitation :—

Hail at Berkhampstead, May 19th-20th, 1924 119
,, in Somerset, August 19th, 1924 188
Hailstorm at Pretoria, December 25th, 1923 267
,, in Somerset, May 18th, 1924. S. N. Plumner 104
Ice-crystals, February 19th, 1924 43
Snow in Greece in 1874 and 1924. H. A. Boys 61
Snowstorm in Cornwall, The great. C. C. Viguers 261

Hydrology :—

Chinese Floods 189
Floods in Somerset (*illus.*) 188, 205
,, on the Vistula 60
Records of Well-levels in Sussex and Kent 104
Underground Water Level : Slow Recovery after Drought 91

Wind :— PAGE

Boundary between Calms and neighbouring Breezes. W. A. Harwood.. 160
Convection and Visibility. W. H. Pick 63
Low Velocities in the Upper Air. L. J. Sutton..... 86
Pilot Balloon observations at Barcelona 36
Results of observations by means of kites. An aerological survey of the United States 57
Soaring Flight 39
Stream Lines in the Austrian Daily Weather Report 266
Wind and Airship Navigation (*illus.*). M. A. Giblett..... 3
,, and Weather. A. McAdie 34
,, Conditions in the Polar Regions 113
,, Direction with Cloud Amount and Visibility at Cahirciveen, County Kerry, On the inter-relation of 208
,, , How to observe the, by shooting spheres upward..... 158
,, structure 18
,, suction in Lighthouses. Hy. Harries 10
,, . Sudden changes of, at Malta (*illus.*)..... 219
,, , The relationship between current and 32
Winds and Temperature in a dry atmosphere 285
,, , Investigation of, which carry the Gypsy Moth 295
,, , The Abnormal, of the Winter and Early Spring, 1923-4..... 81

Cyclones, Storms, Etc. :—

Further researches into the European upper air data, with special reference to the Life history of cyclones..... 128
Haboobs, Notes on 236
Hurricane, Report on, experienced in Montserrat (West Indies), August 28th, 1924. C. A. Gomez..... 239
Like a thief in the Night..... 112
Line-Squall of May 29th, 1924..... 109
Question of the Permanence of Cyclone Tracks, by C. E. P. Brooks.... 156
Statistical study of surface and upper air conditions in cyclones and anti-cyclones passing over Davenport, Iowa..... 9
Storm in Somerset, May 18th, 1924. S. N. Plumner 104
,, , The great, of May 31st, 1924. Measurements in the Wirral Peninsula. E. F. Robson 129
,, , The great, of May 31st, 1924. Rainfall at Ludlow, Salop. A. A. Barnes 106
Thunderstorm, A remarkable. D. W. Horner 210
,, of July 22nd, 1924 (*illus.*), by E. G. Bilham 152
,, , The great, of June 23rd, 1878 150
,, of December, 24th at Oxford. E. M. Tawney 287
Thunderstorms, 1925, Investigation of Winter..... 291
,, , Aeroplanes and 139
,, and Normal Atmospheric Electricity, by G. C. Simpson 255
,, of May 19th-20th, 1924 118
,, , The frequency, over the globe (*illus.*), by F. J. W. Whipple 203
Tornado on Lake Erie, June 28th, 1924..... 265
Typhoon at Hong Kong..... 164
Waterspout at Stornoway, April 16th, 1924..... 96
West Indian Hurricanes and other tropical Cyclones of the North Atlantic Ocean 270

Atmospheric Electricity :—

Atmospheric Electric Currents, normal and abnormal, and their relation to the growth of plants 60
,, Electricity, Thunderstorms and normal 255

Atmospheric Electricity—*cont.*— PAGE

Atmospherics, On the nature of 28
Auroral spectrum and the upper strata of the atmosphere 8
,, , The green, line in the Laboratory 38, 87
Circulation of Atmospheric Electricity, Some New Evidence (*illus.*), by F. J. W. Whipple 201
Electrical Precipitation, Sir Oliver Lodge's Views on 263
Fireball in 1792. C. M. Botley 185
Ionization in the Atmosphere 258
Light emitted from solid nitrogen when bombarded with Cathode Rays, and its bearing on the Auroral Spectrum 233
Lightning, Artifical 165
,, Ball, at South Kensington and Woking 153
,, Red 137
Like a thief in the Night 112
Looking along a Lightning Flash. Hy. Harries 105
On the Luminescence of Nitrogen, Argon and other condensed gases at very low temperatures 233

Climatology and Weather :—

Climate, Adaptation of Variety to 159
Climates, The Evolution of 92
,, The problem of mild polar 284
Climatic conditions, The influence of, on the shape of the nose 141
Climatological Table for the British Empire ..... *monthly*
,, ,, ,, . Admendments to Reference Table 142
Health and Sunlight 115
Insurance Rainfall 88
,, Weather, for Farmers 14
Long Records. J. Ellis Mace 62
Meteorological Conditions affecting Scent 43
Phenological Observations in the British Isles from December, 1922, to November, 1923, Report on the 103
Question of the Permanence of Cyclone Tracks, by C. E. P. Brooks 156
Severe Winter in Greece. H. A. Boys 61
Weather and History 37
,, Conditions in the Polar Regions, and Amundsen's Polar Flight 113
,, of 1924 ..... *monthly*
,, of the World, On keeping Touch with the 253
,, , The Abnormal, of the Winter and Early Spring, 1923-4 79
,, , The wet, of April to August, 1924 (*illus.*), by C. E. P. Brooks 178
,, Type, A northerly. F. Edwards 33
,, , Wind and. A. McAdie 34
World Weather, by Lt.-Col. E. Gold 101

Weather Forecasting :—

Forecast chart, Central Physical Observatory, Leningrad 43
Forecasting, World Weather and long range, by C. E. P. Brooks 27
Gale Warnings issued by the Meteorological Office 165
Growth of the Daily Weather Map 17
Synoptic messages from Rome 71
Weather Lore in the Light of Science. W. J. Humphreys 84
Weather Reports from North-East Greenland 135
Wettervorhersage die Fortschritte der synoptischen meteorologie. G. C. S. 293

Meteorological Observations :—

Austrian Daily Weather Report 117, 266
Charts of the Northern Hemisphere 232

Climatology and Weather—*cont.*—

Meteorological Observations—cont.— PAGE

Daily Weather Charts for the South Atlantic 241
Growth of the Daily Weather Map through wireless telegraphy 17
Long Arm of Coincidence 16
" " . F. J. Parsons 61
" " . A. O. Walker 61
Monthly issue of North Atlantic Charts by the Deutsche Seewarte..... 43
New cases for the display of autographic records at South Kensington 44
Observatory Reports for 1923..... 115

Astronomy:—

Calendar, The Week-Spell .....
Reform of the Calendar. H. A. Boys 161
" " " Napier Shaw..... 236
Reverse of Daylight Saving 91
Standard of Time in the Far East 137
Thirteen Months in the year 135

Oceanography:—

Boundary between Calms and Neighbouring Breezes. W. A. Harwood 160
Relationship between current and wind..... 32

Terrestrial:—

Magnetic Quiet and Disturbed Days 290
Terrestrial Magnetism and Seismology at the Meteorological Office Observatories 242
Weather and Magnetic Character. C. Chree..... 32

ERRATA.

Vol. 58, p. 287, second line, *For* "$\frac{1}{4}\frac{b}{L^2}h$" *read* "$\frac{1}{4}\frac{b^2}{L^2}h$."

See also Vol. 59, p. 209.

ILLUSTRATIONS.

PAGE

Highways of the Air 5
A rainfall Observer for sixty-seven years. William S. Clark .....*face p.* 49
Sound Range through Troposphere, Stratosphere and Lower Empyrean.. 51
Sun Pillar, March, 1924 54
Pressure Anomalies in Two Winters 80
Record of Float Barograph at South Kensington, May 29th-30th, 1924 .. 109
Rainfall of May 31st, 1924 118
Dines Anemograph ; tapered collar for float-rod gland 133
The Great Thunderstorms of June 23rd, 1878 150
The Thunderstorm of July 22nd, 1924..... 152
Tracks of Centres of Negative Pressure Deviation..... 180
Deviations of Pressure ; April to June 180
The New Tapered Rain Measure..... 194
The New Tapered Rain Measure in Use .....*face p.* 194
Potential Gradient and Thunderstorms 203
Rainfall, 18th August, 1924, in inches 206
Damage done by Floods, August 19th, 1924.....*face p.* 209
The relation between Fire Damp and Pressure 212
Autographic Records at Malta 218
Barometric Pressure, Botanic Station, Montserrat, August 28th, 1924.... 240
The Campbell-Stokes Sunshine Recorder at Porton .....*face p.* 260
Elliptical Lunar Corona observed at Aberdeen, October 11th, 1924..*face p.* 261
Apparatus for testing rain-gauge measures at the Meteorological Office, South Kensington .....*face p.* 262
Temperature and Humidity, Kew Observatory, December, 1924 281
Typical Sections from Dust Record 283